

**REMARKS**

Initially, Applicant thanks the Examiner for acknowledging that certified copies of the priority documents have been received in this application, and for acknowledging Applicant's claim to foreign priority. Further, Applicant thanks the Examiner for considering the references listed within the Information Disclosure Statement filed on September 27, 2001.

Claims 1-21 are all the claims pending in this application. Claim 1 is the only independent claim. Claims 1-5 and 17 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of McMillen (U.S. Patent No. 5,321,813). Additionally, claims 1-3, 15-18, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Ramaswami (U.S. Patent No. 6,650,803).

The Examiner has also rejected claims 6-9 under 35 U.S.C. § 103(a) as being unpatentable over McMillen, in view of Macera (U.S. Patent No. 5,490,252). Further, claims 10-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McMillen, in view of Lauder (U.S. 2002/013585 A1). Finally, claims 14 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ramaswami in view of Ikoma (U.S. 2002/0097460 A). As set out more fully below, Applicant traverses these rejections.

**A. Claims 1-5 and 17 (§ 103(a), McMillen)**

Independent claim 1 recites, among other things, line processing equipment comprising (1) at least one line processing means and (2) line connection reconfiguration means. The line connection reconfiguration means sets up and reconfigures (A) connections from input lines to

either (i) the line processing means or (ii) output lines and (B) connections from the line processing means either (i) back to the line processing means or (ii) to the output lines.

The Examiner asserts that McMillen discloses all these elements except the specific switched connections of the line connection reconfiguration means. In particular, the Examiner asserts that claim 1's line connection reconfiguration means is disclosed in Fig. 6A at reference numeral 16. The reference numeral 16 refers to an 8x8 switch node. (Col. 7, lines 10-16).

Switch node 16 is not a line connection reconfiguration means, as recited in claim 1. Switch node 16 provides for a plurality of possible interconnection paths from a sending processor module 12 to a set (one or more) of receiving processor modules 12. (Col. 6, lines 14-17). Accordingly, there is no disclosure, teaching or suggestion in McMillen that switch nodes 16 provide for a connection from a line processing means either (i) back to the line processing means or (ii) to the output lines. In addition, since switch node 16 is only concerned with interconnections between sending and receiving processor modules 12, there is no disclosure, teaching or suggestion in McMillen for claim 1's input lines or output lines.

However, the Examiner now asserts that the recited connections and interconnections are obvious. To get to this conclusion, the Examiner asserts that it would have been obvious to one of ordinary skill to integrate the separate line processing means so as to reduce the footprint space on a line card. As such, the Examiner appears to be suggesting that if element 16 of Fig. 6A were connected to claim 1's input lines, line processing means or output lines, then McMillen would, in essence, disclose all the recited elements of claim 1. However, this logic is fatally flawed.

In essence, the Examiner's argument is circular. McMillen does not disclose the recited connections and interconnections of claim 1. The Examiner has already admitted this fact in his argument. As such, it is not proper to argue that if McMillen did have the recited connections and interconnections, it would make claim 1 unpatentable. That is, the reference itself must disclose, teach or suggest the recited connections and interconnection. As such, the Examiner's burden of proof cannot be met by referencing elements that do not exist in McMillen. In fact, this seemed to be one of the weaknesses in the now-withdrawn § 102 rejection of claim 1 which was also based on McMillen.

The burden of establishing that a claimed invention is *prima facie* obvious rests on the USPTO. *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). To make its *prima facie* case of obviousness, the USPTO must satisfy three requirements:

- a) The prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the artisan to modify a reference or to combine references. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).
- b) The proposed modification of the prior art must have had a reasonable expectation of success, as determined from the vantage point of the artisan at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1208, 18 U.S.P.Q.2d 1016, 1022-23 (Fed. Cir. 1991).
- c) The prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442

(Fed. Cir. 1991); *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, the nature of a problem to be solved. *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Alternatively, the motivation may be implicit from the prior art as a whole, rather than expressly stated. *Id.* Regardless of whether the USPTO relies on an express or an implicit showing of motivation, the USPTO is obligated to provide particular findings related to its conclusion, and those findings must be clear and particular. *Id.* A broad conclusionary statement, standing alone without support, is not “evidence.” *Id.*; *see also, In re Zurko*, 258 F.3d 1379, 1386, 59 U.S.P.Q.2d 1693, 1697-98 (Fed. Cir. 2001). In this matter, the Examiner has not provided any particular findings with respect to how McMillen allegedly discloses, teaches or suggests the recited connections and interconnections.

In addition, a rejection cannot be predicated on the mere identification of individual components of claimed limitations. *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000). Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Id.* Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d at 1316-1317 (*citing B.F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72 F.3d 1577, 1582, 37 U.S.P.Q.2d 1314, 1318

(Fed. Cir. 1996)); *see also, Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (B. Pat. App. & Inter. 1985)) (“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.”).

As noted above, McMillen fails to disclose, teach or suggest at least the line connection reconfiguration means, and the related connections and interconnections, as recited in claim 1. Accordingly, the Examiner has not met the burden for a prima facie case of obviousness.

**B. Claims 1-3, 15-18, 20 and 21 (§ 103(a), Ramaswami)**

The Examiner asserts that Ramaswami also discloses all the elements of independent claim 1, except for the recited connections and interconnections which were also at issue with respect to the § 103(a) rejection based on McMillen, discussed above. Specifically, the Examiner asserts that the first processing unit 710 (Fig. 11) discloses the line processing means element of independent claim 1. Further, the Examiner asserts that first optical switch core 240 (Fig. 12) discloses the line connection reconfiguration means element of independent claim 1. Applicant respectfully disagrees.

First processing unit 710 is an element of servo module 225. In the Examiner’s response to Applicant’s prior arguments, the Examiner incorrectly states that “the servo module that Applicant is referring to in Fig. 11 is element 750 not 710.” However, Applicant notes that reference numeral 750 refers to a servo mirror control module which is one of two separate modules which together form servo module 225. (Col. 10, lines 9-14).

Servo module 225 does not play any part in processing signals carried along optical path 800. Instead, servo module 225 merely establishes and maintains optical path 800 for light signals by controlling the physical orientation of the mirror of the optical switch matrix that corresponds to the source I/O module 215. (Col. 12, lines 23-35). That is, even if the first optical switch core 240 discloses the recited line connection reconfiguration means, the connections set up and reconfigured by first optical switch core 240 are not connections coming from or going to servo module 225. Put differently, the Examiner cannot simply pull the first processing unit 710 from servo module 225 and then claim that first processing at 710 acts as the line processing means of independent claim 1 without acknowledging its function as part of servo module 225.

Simply put, servo module 225 (which contains first processing unit 710) and first optical switch core 240 of Ramaswami do not operate on the same types of, or related, “connections” as recited in, and required by, independent claim 1. Accordingly, with respect to Ramaswami, Applicant respectfully submits that the Examiner has failed to prove obviousness with respect to independent claim 1.

In fact, the Examiner admits that Ramaswami fails to disclose the recited connections and interconnections of claim 1 using the same argument presented with respect to the § 103(a) rejection based on McMillen. As noted in Applicant’s response to the claim of obviousness above, Applicant again respectfully suggests that the Examiner has failed to reference any specific portion or portions of Ramaswami which would disclose, teach or suggest the recited connections and interconnections required by claim 1. As such, it is not enough for the

Examiner to merely state that if these elements were available to Ramaswami, then it would have been obvious to one of ordinary skill to integrate the separate line processing means so as to reduce the footprint space on a line card. Simply put, there is absolutely no support for this argument.

**C. Remaining § 103(a) Rejections of Claims 6-14 and 19**

The remaining § 103(a) rejections of claim 6-14 and 19 rely on the combination of either McMillen or Ramaswami with other references. As noted above, neither McMillen nor Ramaswami contain all the elements recited in independent claim 1. Since the additional reference cited by the Examiner has not supplied, or even addressed, the elements missing from McMillen and Ramaswami, and the Examiner has not argued otherwise, dependent claims 6-14 and 19 remain patentable.


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 09/934,579

Q65960

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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